

What is claimed is:

1. A method of detecting bit disparity within a data stream comprising the steps of:

- (i) low pass filtering of the data stream to determine a data stream average power value;
- (ii) determining a bit stream baseline power value from a test signal; and
- (iii) measuring the deviation of the average power value from the baseline power value to determine a bit disparity value.

10 2. The method according to claim 1, wherein the step of determining a bit stream baseline power value for the data stream comprises the steps of:

- (i) determining a one bit stream baseline power value and a zero bit stream baseline power value from the test signal; and
- (ii) ascertaining the median value of the one bit stream baseline power value and the zero bit stream baseline power value to determine the bit stream baseline power value of the test signal.

15 3. The method according to claim 1, further comprising the steps of:

- (i) triggering a threshold alarm upon detection of a high measurement of the bit disparity value; and
- (ii) transmitting an automated customer warning upon the triggering of the threshold alarm.

20 4. The method according to claim 1, further comprising the step of adjusting the control of a laser upon detection of a high measurement of the bit disparity value.

25 5. The method according to claim 1, further comprising the step of converting the bit disparity value into a digital representation.

30 6. An apparatus for detecting bit disparity within a data stream, the apparatus comprising:

- a low pass filter for determining an average power value for a data stream and for determining a one bit stream baseline power value and a zero bit stream baseline power value from a test signal; and
- 5 a measuring element for ascertaining the median value of the one bit stream baseline power value and the zero bit stream baseline power value so as to determine a bit stream baseline power value of the test signal and for measuring the deviation of the average power value from the baseline power value to determine a bit disparity value.
- 10 7. The apparatus according to claim 6, further comprising a threshold alarm set to trigger upon detection of a high measurement of the bit disparity value whereby an automated customer warning may be transmitted upon the triggering of the threshold alarm.
- 15 8. The apparatus according to claim 6, further comprising a laser control for automatically adjusting the laser in real-time upon detection of a high measurement of the bit disparity value.
9. The apparatus according to claim 6, further comprising an analog/digital converter to convert the bit disparity value into a digital representation.
- 20 10. An apparatus for detecting bit disparity within a data stream, the apparatus comprising:
means for determining a data stream's average power value;
means for determining a bit stream baseline power value; and
means for measuring the deviation of the average power value from the bit stream baseline power value to determine a bit disparity value.
- 25 11. The apparatus according to claim 10, wherein the means for determining a bit stream baseline power value comprises:
means for determining a one bit stream baseline power value and a zero bit stream baseline power value from a test signal;

- means for ascertaining the median value of the one bit stream baseline power value and the zero bit stream baseline power value to determine the bit stream baseline power value of the test signal.
- 5 12. The apparatus according to claim 10, further comprising means whereby an automated customer warning may be transmitted upon detection of a high measurement of the bit disparity value.
- 10 13. The apparatus according to claim 10, further comprising means for automatically adjusting the laser in real-time upon detection of a high measurement of the bit disparity value.
- 15 14. The apparatus according to claim 10, further comprising a means to convert the bit disparity value into a digital representation.